

SWETA AGRAWAL

Department of Computer Science, University of Maryland College Park, MD 20740

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EDUCATION

Ph.D. in Computer Science

August 2018 - Present

University of Maryland, College Park (CGPA: **4.0**/4.0)

Relevant Coursework: Computational Linguistics, Advanced Techniques in Visual Learning and Recognition, Advanced Numerical Optimization, Algorithms in Machine Learning: Guarantees and Analyses

Bachelor of Technology in Computer Science and Engineering

July 2013 - May 2017

Institute of Technology Guwahati (CGPA: **9.30**/10.0)

Relevant Coursework: Artificial Intelligence, Natural Language Processing, Computer Vision, Information Retrieval, Probability Theory and Random Processes, Algorithmic Game Theory, Data Mining

EXPERIENCE

Member of Technical Staff, Adobe Systems, Noida, India

June 2017 - July 2018

Developed models that automate the process of color correction and color grading for Adobe Premiere Pro CC.

Research Intern, Adobe Systems, Bangalore, India

May 2016 - July 2016

Designed and developed product specific, user affinity and location semantics based geo-fences.

Research Intern, Summer Research Fellowship Program, IIT Kanpur

May 2015 - July 2015

Compared the performance of Hadoop Map Reduce and Apache Spark using K-Means clustering algorithm.

PUBLICATIONS AND PATENTS

Publications Sweta Agrawal and Marine Carpuat, *Controlling Text Complexity in Neural Machine Translation*, **EMNLP-IJCNLP** 2019.

Sweta Agrawal and Amit Awekar, *Deep Learning for Detecting Cyberbullying Across Multiple Social Media Platforms*, European Conference on Information Retrieval (**ECIR**), 2018.

Ankur Garg, Sunav Choudhary, Payal Bajaj, Sweta Agrawal, Abhishek Kedia, and Shubham Agarwal, *Smart Geo-Fencing Using Location Sensitive Product Affinity*, **ACM SIGSPATIAL**, 2017.

Patents Chetan Nanda, Sweta Agrawal, Ramesh P B, *Temporal Color Correction using Machine Learning*, USPTO.

Ankur Garg, Sweta Agrawal, Payal Bajaj, Abhishek Kedia, and Shubham Agarwal, *Smart Geo-Fencing Using Location Sensitive Product Affinity*, USPTO.

SKILLS AND INTERESTS

Programming Languages

Python, C/C++, R

ML Frameworks

Pytorch, Tensorflow, Caffe, Keras, Scikit-Learn, Theano

PROJECTS

Controlling Text Complexity in Neural Machine Translation

Aug 2018 - May 2019

Prof. Marine Carpuat, Computer Science Department, University of Maryland

Introduced a machine translation task where the output is aimed at audiences of different levels of target language proficiency and investigated the impact of different types of translation and text simplification supervision for this task.

Deep Memorized Discriminative Patches for Object Discovery

Jan 2019 - Ongoing

Prof. Abhinav Shrivastava, Computer Science Department, University of Maryland

Working on a novel Memory-Assisted Deep Neural Network capable of learning discriminative patches aimed at quantitatively explaining rationales of each prediction and use it for the discovery of new objects.

Detecting Cyberbullying Across Multiple Social Media Platforms

July 2016 - May 2017

Bachelors Thesis Project, Prof. Amit Awekar, Computer Science Department, IIT Guwahati

Experimented with DNN architectures that outperform traditional ML models and used knowledge transfer between SMPs to improve performance for the task of bullying detection.

SBQA: Searching Boosting Question Answering

Aug 2018 - Dec 2018

Prof. Jordan Boyd-Graber, Computer Science Department, University of Maryland

Developed a system for Quizbowl, a trivia QA competition, proposed unique solutions for the guesser and the buzzer modules and consistently scored top performance in the leaderboard.

Follow the hashtag: Popping the filter bubble

January 2017 - April 2017

Prof. Ashish Anand, Computer Science Department, IIT Guwahati

Studied the problem of filter bubble in Twitter. Experimented with auto-encoders to encode tweets into vector representations and then applied clustering to form opinion buckets.

Topic based Enhanced Search Engine

July 2016 - Nov 2016

Prof. Sanasam Ranbir Singh, Computer Science Department, IIT Guwahati

Improved search results by incorporating general and specific aspects of a document using topic modelling (via LDA).